



**Quality Assurance Unit**



**Tanta University  
Faculty of Medicine**

**Department of Forensic Medicine and Clinical Toxicology**

**Course Specifications**

**Clinical Toxicology for Forensic  
Medicine and Clinical  
Toxicology Doctorate degree  
FMCT 9006**

**2014-2015**

Clinical Toxicology Forensic Medicine and Clinical Toxicology Doctorate Degree Course  
Specifications

University: Tanta Faculty: Medicine Department: Forensic Medicine and Clinical Toxicology

### **1) administrative Information**

**1- course title: Clinical Toxicology for Forensic Medicine and Clinical Toxicology Doctorate Degree**

**2- Department offering the program: Forensic Medicine and Clinical Toxicology Department**

**3- Department responsible for the course: Forensic Medicine and Clinical Toxicology Department**

**4- Course code: FMCT 9006**

**5- Level: Second part**

**6- No. of Credit / taught hours:**

**Lectures: 28 credit hrs Practical/clinical: 28 credit**

**Total: credit hours taught hours**

**7-Authorization date of course specification:**

### **2) Professional Information**

#### **1 – Overall Course aims**

To offer advanced knowledge and skills in the discipline of clinical toxicology, which allow the student to gain positive attitude towards development of discipline through adding new to scientific research, teaching junior students, and introduce a high quality professional medical services to the community, reflecting the mission of our faculty and spirit of our department

#### **2 – Intended learning outcomes (ILOs):**

##### **a-knowledge and understanding:**

*By the end of the course the candidate will be able to:*

- a.1- discuss the theories and principles, and updates about (toxins and management of poisoning including addiction and different methods of toxins detection).
- a.2- recognize the ethical and legal principles of medical and professional practice
- a.3- identify the principles of quality assurance in medical practice
- a.4- discuss the effect of medical practice on surrounding environment, and how to develop and protect environment (current toxicities in Egypt and worldwide, syringe disposal, tissue and blood specimen transport ...etc)

##### **b. Intellectual skills:**

*By the end of the course the candidate will be able to:*

- b.1- analyze medical information related acute and chronic poisoning including addiction.
- b.2- interpret medical problem related to clinical toxicology (Response urgently for first aid and management of critical toxicities, Decide correctly patient disposition, Recognize the suspected poisons for starting the toxicology screening).
- b.3- demonstrate risks in medical practice (nosocomial infections, care for infectious cases...etc).
- b.4- Plan to develop progress in his career practice
- b.5- organize professional medical dissensions according to different situations when facing medical problem (during clinical training course).
- b.6- prepare solutions to medical problems in his specialty (suggest innovative scenarios for controlling particular toxicities , reduce epidemic poisonings...etc).
- b.7- organize medical issues on evidence based manner.

**c. Professional and practical skills:**

*By the end of the course the candidate will be able to:*

- c1- revise first aid and CPR for poisoned patient cleverly.
- c2- select different methods of drug screening starting from color tests up to using the most recent technologies for drug detection.
- c3-assess Diagnosis and treat acute and chronic toxicities including drugs abuse (addiction).
- c.4- Select medical, analytical methods and tools used in his specialty and share in its development and progress.

**d. General and transferable skills:**

*By the end of the course the candidate will be able to:*

- d.1-Communicate effectively with the patients and their relatives, transferring them information about illness in clear and suitable words.
- d.2- use specified topics on the library books, medical journals, and internet( eg assignments, journal club).
- d.3- Apply self evaluation and specify his medical educational needs (eg through tutorials).
- d.4- Mange time and practice team working.
- d.5- apply team working ,and lead a team in medical care application to the patients.
- d.6- perform continuous medical education.
- d.7- Apply respect to all colleagues in his medical team.
- d.8- Apply ethical principles on treating the patients.

**3) -Course contents**

| <b>i- Medications</b>   | <b>Total lectures' credit hours</b> | <b>Total Practical/clinical 's credit hours</b> |
|---|-------------------------------------|---|
| Cardiovascular<br>1- Digitalis glycosides<br>2- B-receptor antagonists<br>3- Calcium channel blocking agents<br>4- Sodium channel blocking antidysrhythmics<br>5- Sodium nitroprusside<br>Decongestant/antihistaminergic/bronchodilator<br>6- Inidazoline, guanidine, and oxazoline<br>antihypertensives and decongestants<br>7- Antihistamines<br>8- Theophelline and other methylxanthines<br>9- Sympathomimetic agents<br>Psychotropic<br>10- Cyclic antidepressants<br>11- Monoamine oxidase inhibitors<br>12- Serotonergic antidepressants<br>13- Neuroleptic agents<br>14- Lithium<br>15- Anxiolytic sedativehypnotics<br>16- Barbiturates<br>17- phenytoin<br>18- Carbamazepine<br>19- Valproic acid<br>Neuromuscular<br>20- Baclofen<br>21- Centrally acting relaxants<br>22- Antiparkinson's medications<br>Analgesic/anti-inflammatory<br>23- Acetaminophen<br>24- Opioids<br>25- Salicylates<br>26- Nonsteroidal anti-inflammatory<br>27- Gold compounds<br>28- Methotrexate<br>Antimicrobial<br>29- Isoniazid and related hydrazines<br>30- Rifampin, dapsone, and vancomycin<br>31- Chloroquine an quinine<br>32- Lactic acidosis and nucleoside analogue<br>Hematologic | 28                                  | 28  |

- |  |  |  |
|--|--|--|
| 33- Iron   |  |  |
| 34- Oral anticoagulant   |  |  |
| 35- Thrombolytics, heparin and derivatives                           |  |  |
| 36- Antitubulin agents, colchicines, vinca alkaloids and podophyllin |  |  |
| 37- Ergot alkaloids  |  |  |
| 38- Antidiabetic agents  |  |  |

#### 4) Teaching and learning methods

- 3.1** Lectures.  
**3.2** seminars.  
**3.3** Clinical training in poison control center and casualty units in Emergency Hospital.  
**3.4** laboratory training in the clinical toxicology laboratories .  
**3.5** Problem based learning.

#### 5) Candidate Assessment:

##### At the end of each semester:

1. Log book: at least 75% of attendance.
2. End of semester exam: at least C is required.

##### At the end of the first part:

1. Written exam to assess (a1- a4 , b1-b7)
2. Practical & clinical exam to assess(c1-c4)
3. Oral exams to assess (b1-b7)
4. Log book activity assignment to assess (d1-d8)

#### 6) Weighing of assessments

|                               |                |
|-------------------------------|----------------|
| <b>Written examination</b>    |                |
| <b>Clinical examination:</b>  |                |
| <b>Oral examination:</b>      |                |
| <b>Semester work</b>          | Formative only |
| <b>Periodical examination</b> | Formative only |
| <b>Total</b>                  |                |

#### 7) List of references

##### 8.1 Course notes

Hand outs of J.clubs and seminars

##### 8.2 Text book

- Emergency toxicology. -
- The forensic pharmacology of drug of abuse.
- Critical care toxicology.

- Poisoning and drug overdose.
- Goldfrank's manual of toxicologic emergency.

**Periodicals and web sites**

- Journal of applied toxicology.
- Journal of toxicology and environmental health.
- Journal of occupational medicine and toxicology.
- Journal of toxicology – an open access

**8) Other resources/ facilities required for teaching and learning to achieve the above ILOs**

- 1- Laboratory equipments for toxins screenings.
- 2- Extension of poison control center in emergency hospital to ensure good clinical training for clinical toxicology.
- 3- Chemicals for laboratory tests.
- 4- Availability of models for training on life support measures in poisoning.

**10)we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented**

We verify that the above program and the analysis of students and external evaluator opinions are accurate.

Program coordinator and head of department

name.....signature.....Date.....

Head of quality assurance unit:

name.....signature.....Date.....